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Health care technology assessment and transfer

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Financing a national health care system has become an eminent societal and political issue in industrialized countries. Today, patients are well informed and demand for a full, immediate access to the whole spectrum of available health care resources. Simultaneously, complaints on the high costs are rising. Reallocation or restrictions of resources are being discussed to solve the health care conundrum.

Spinal surgery is predominantly focusing on the improvement of health-related quality of life and in most cases not a lifesaving intervention. Therefore, spinal surgery, theoretically, is dispensable in the vast majority of cases. At the same time, spinal surgery is one of the most rapidly growing surgical disciplines in medicine, substantially increasing health care costs. Spinal surgery may come more and more into the focus of politicians when reallocation of resources is prompted. This has already happened in Switzerland, where total disc arthroplasty (TDA) was stopped by a health political moratorium. Only after a formal health technology assessment and the instalment of a nationwide quality control system in the form of a spine registry, reimbursement for TDAs was restarted. Meanwhile, kyphoplasty and dynamic stabilization were scrutinized in a similar fashion in Switzerland.

Eurospine, the Spine Society of Europe has decided to take on a proactive role and inaugurated a Committee for Health Technology Assessment and Registry dedicated to these issues on a European level. In a context of scarce

resources in the health care sector, treatment decisions and particularly the choice of costly technology should be based on scientific evidence. When new health technologies are introduced an evidence-based approach is not possible for obvious reasons. On the other hand, new promising technology cannot be retained for years until sufficient scientific evidence is generated. However, a structured process of technology transfer from the bench to the bedside can be started using so-called health technology assessments (HTAs). The International Network of Agencies for Health Technology Assessment defines HTA as “a systematic evaluation of properties, effects, and/or impacts of healthcare technology. It may address the direct, intended consequences of technologies as well as their indirect, unintended consequences. Its main purpose is to inform technology-related policymaking in health care. The HTA is conducted by interdisciplinary groups using explicit analytical frameworks drawing from a variety of methods” [1]. As indicated by this definition, HTAs seek the best available evidence to allow for an informed structured decision making on new medical technology. In this process, HTAs do not only consider technical properties, safety, clinical effectiveness and economic impact but also try to see the new technology in a wider perspective, i.e., take into account societal impact, social and ethical consequences as well as political implications [3, 7]. Eurospine has decided to promote and create awareness for HTAs in spinal health care. Full HTAs are time and cost consuming and often do not provide the required information on new technology in a timely manner. Rapid HTAs can fill in that gap and are useful as a provisional appraisal [4]. Eurospine wants to foster such rapid HTAs for emerging technology such as, e.g., interspinous spacers or nucleoplasty, thereby

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providing a model role on how a society can actively influence the introduction and spreading of new technologies.

As the official publication of Eurospine, the European Spine Journal has responded to the needs of Eurospine and created a dedicated section in the Journal on “Health Technology Assessment and Transfer”. In this issue, we start this new section with an overview article by Herndon, Hwang and Bozic on “Health Technology and Technology Assessment”. The article is based on the guest lecture of James H. Herndon during the HTA symposium at the 2006 Eurospine meeting in Istanbul. Dr. Herndon is one of the most distinguished American orthopedic surgeons with an impressive track record of achievements, who was always in the forefront in pinpointing unaddressed problems such as, e.g., adverse events in surgery [5, 6]. Together with Kevin J. Bozic and Read G. Pierce, he first communicated the important role of HTAs in the orthopedic community [2]. In the present article, Herndon et al. [5] discuss forces that drive the introduction of new technology and provide an overview on the basic principles of HTAs. The article also highlights the necessity for a comprehensive analysis of risks, benefits and costs before a new technology is available for general use by physicians.

In this new journal section, we do not only intend to communicate HTAs of spinal treatments and technologies but we also want to highlight political issues associated with the introduction of new technologies. The HTAs should build a bridge between health science on one side and health politics on the other side. This new section

should create the awareness for the need for and potential of HTAs. Health technology assessments should allow for a structured, rationalized and cost-containing approach when introducing new technologies. The final goal is to allow for a rapid adoption of new technology, which is superior and abandon those new techniques, which are inferior or less safely compared to existing treatments. Finally, HTA may thereby prevent retention of new promising technology and contribute to a continuous improvement of spinal health care.

References

1. Anonymous (2006) HTA glossary. <http://www.inahta.org>
2. Bozic KJ, Pierce RG, Herndon JH (2004) Health care technology assessment. Basic principles and clinical applications. *J Bone Joint Surg Am* 86(A):1305–1314
3. Draborg E, Gyrd-Hansen D (2005) Time-trends in health technology assessments: an analysis of developments in composition of international health technology assessments from 1989 to 2002. *Int J Technol Assess Health Care* 21:492–498
4. Hailey D, Corabian P, Harstall C, Schneider W (2000) The use and impact of rapid health technology assessments. *Int J Technol Assess Health Care* 16:651–666
5. Herndon JH, Tipton WW Jr, Wong DA (2003) Approaches to avoiding wrong site surgery. *Am J Orthop* 32:274; author reply 274–5
6. Hwang RW, Herndon JH (2007) The business case for patient safety. *Clin Orthop Relat Res* 457:21–34
7. ten Have H (2004) Ethical perspectives on health technology assessment. *Int J Technol Assess Health Care* 20:71–76